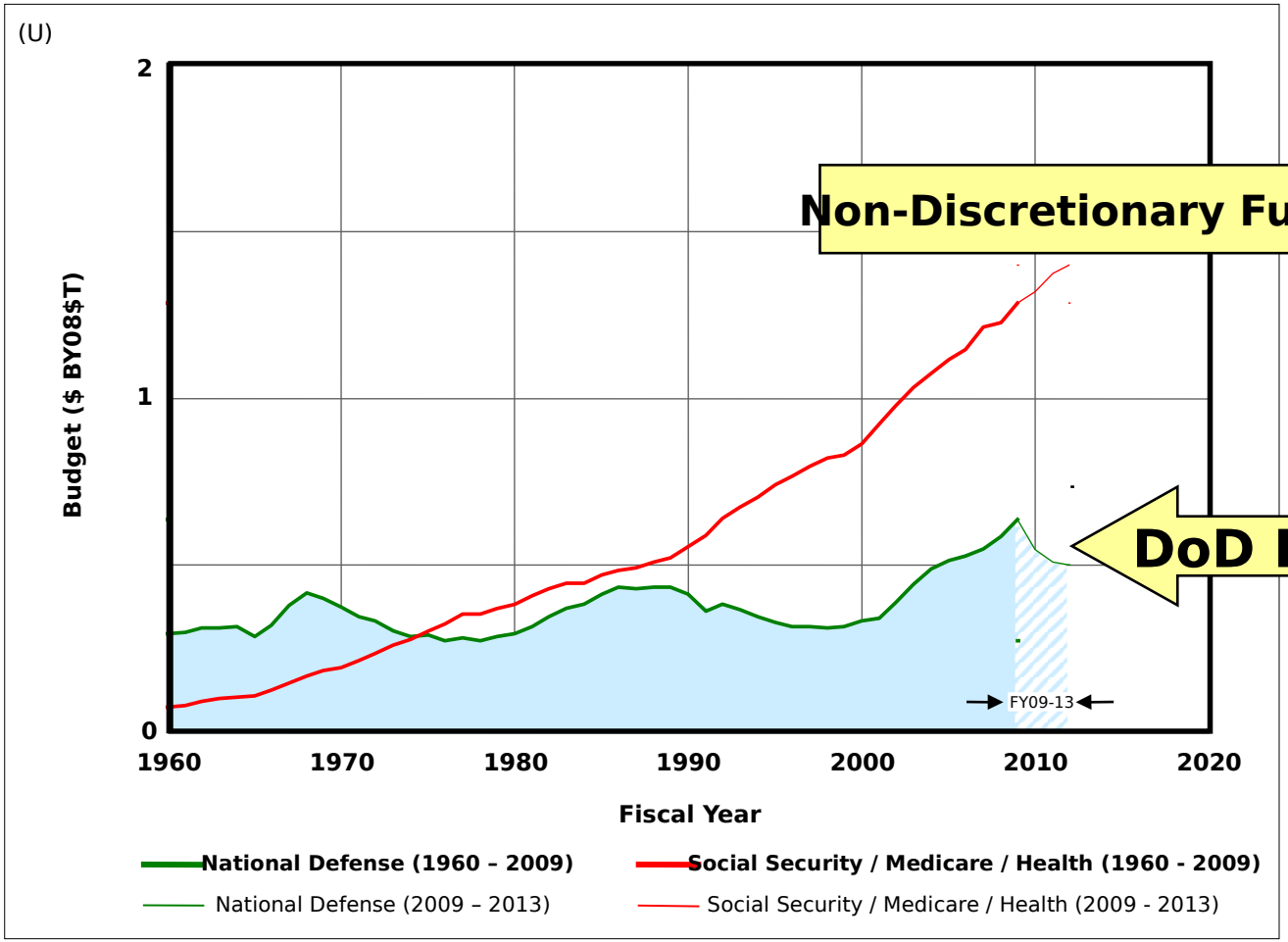
USD(I) R&D and Technology Transition

Mr. Bob Arbetter
Director, Collection Concepts & Strategies
ODUSD(I) Technical Collection and Analysis

Topics

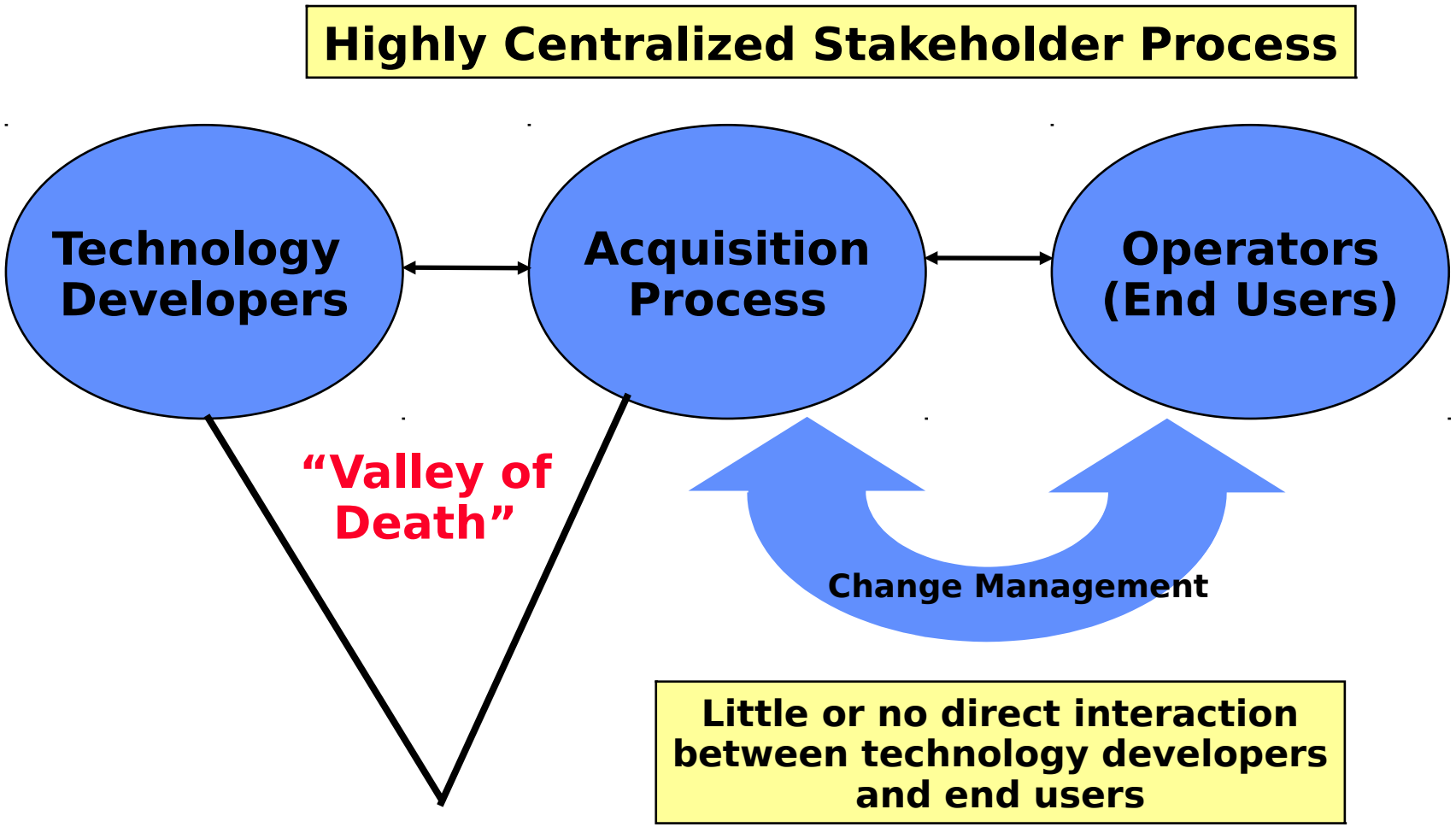
- A Short Word on Budgets
  - Must Spend Scarce R&D Dollars Wisely
- Issues – "Valley of Death"
  - Contributors
  - Bridging the Gap
- Current USD(I) Efforts
  - USD(I) R&D Forum
  - USD(I) ISR Employment Strategy
  - Thunderstorm
  - NISTC
- Conclusion/Questions

Competition For Dollars



Must Spend Scarce R&D Dollars Wisely

The S&T "Valley of Death"



Contributors to the "Valley of Death"

- **Centralized and highly structured acquisition process**
  - **Joint Capabilities Integration and Development System (JCIDS)**
- **Prime time or no time…substantial barriers to entry for technology developers**
- **Stringent requirements - perfect is the enemy of good**
  - **The great idea never gets out of the garage**
- **Developers do not have direct interface with their customers**
  - **"Missed it by *that* much…"**
- **Technology developers accept risk…acquisition community is risk averse**

The "Valley of Death" – we don't know what we don't kno

Bridging The "Valley of Death"

- **Advocate promising technologies and shepherd them through the system**
- **Use the policy leverage to make the acquisition process more "technology friendly"**
- **Allow end users to represent themselves in the process**
- **Develop processes that speed up technology insertion and fielding**
  - **Slow acquisition equals obsolete technology**

"When we're challenged to lay out a five-year programming and budget plan, the so called POM, our retort is that we will…when Al Qaeda gives us their five year plan."

Office

FY 10-15 Defense Intelligence Guidance directs components to shorten the acquisition timeline for emerging technologies

Current USD(I) Efforts

- **USD(I) R&D Forum**
  - **Membership:**
    - **USD(I) – chair**
    - **Defense Advanced Research Projects Agency (DARPA)**
    - **Defense Intelligence Agency (DIA)**
    - **National Geospatial-Intelligence Agency (NGA)**
    - **National Reconnaissance Office (NRO)**
    - **National Security Agency (NSA)**
  - **Collaborative body chartered to explore ways in which R&D can contribute to intelligence support**
    - **Advocate for DoD R&D**

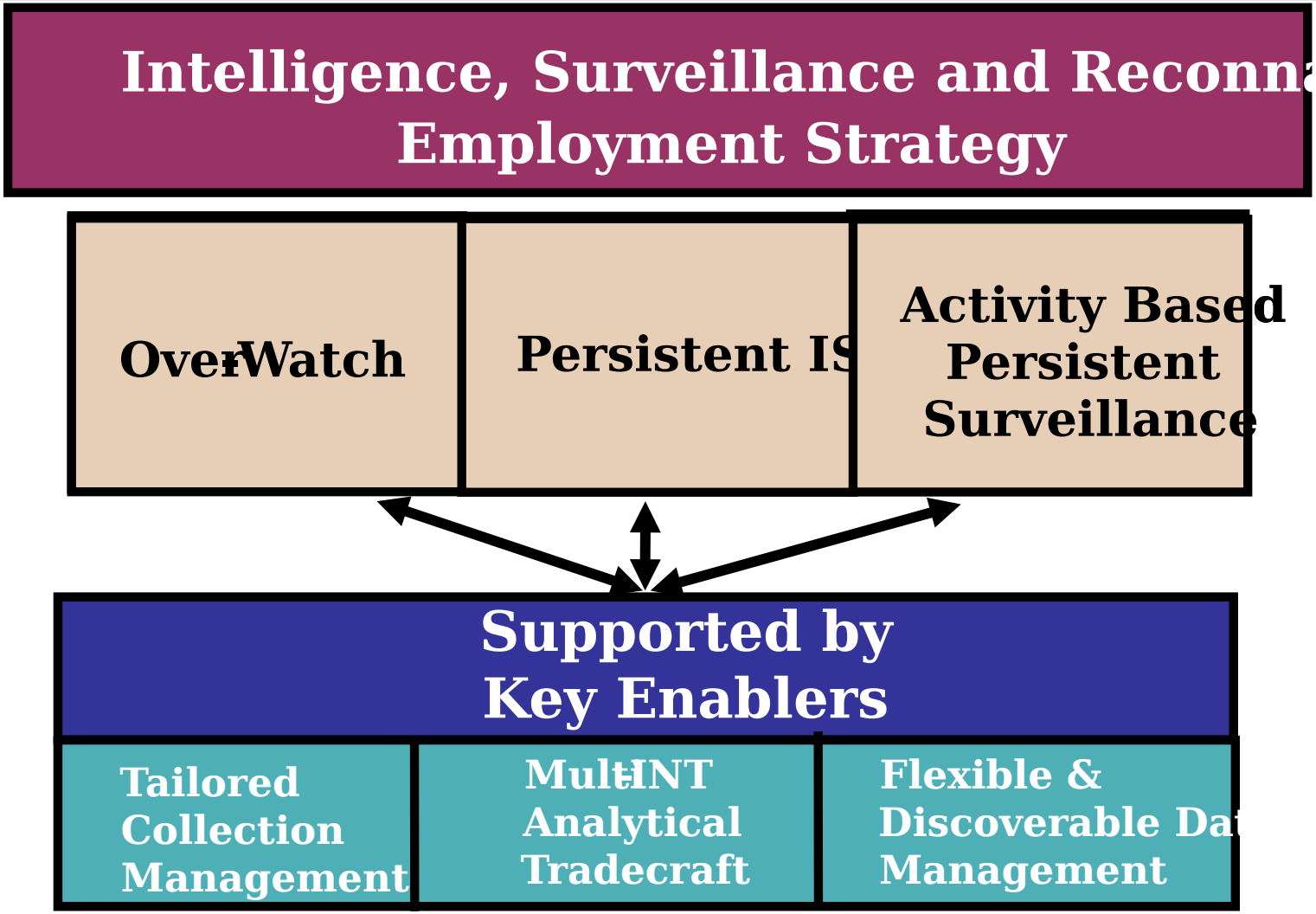
Focus on relevant and rapid intelligence technology insert

Current USD(I) Efforts (cont.)

- **ISR Employment Strategy**
  - **Developed from lessons learned and best practices culled from the current fight**
  - **Applicable to any combatant command area of operations**
  - **Provides for intelligence support to irregular and traditional warfare**
- **ISR Technology Database**
  - **Parallel effort to the ISR Employment Strategy**
  - **Technologies chosen from extensive review of ongoing efforts at National Labs, Federally Funded R&D Centers, DoD (services and combat support agencies)**

Codify and validate the employment of technologies that are working today

ISR Employment Strategy Model



Current USD(I) Efforts (cont.)

- **Thunderstorm**
  - **USD(I) partnering with OSD AT&L Rapid Reaction Technology Office (RRTO) to introduce intelligence technologies, concepts, and scenarios into SOUTHCOM operational mission**
    - **Proof of concept demonstration of technologies and communications infrastructure**
    - **Supports Joint Interagency Task Force – South operational mission**
  - **Thunderstorm "graduates" can be exported to other theaters**

Low-risk operational environment provides an excellent test bed for new technologies and concepts

Current USD(I) Efforts (cont.)

- **National Intelligence S&T Committee**
  - **An Intelligence Community (IC) forum**
    - **Chaired by DNI Director of S&T; composed of principal science officers from each of the 16 members of the IC and USD(I) representative**
    - **Focuses on IC-wide S&T issues, e.g.**
      - **COCOM support**
      - **Technology transition**
      - **S&T community management issues**
      - **Networking**

Questions?

Mr. Bob Arbetter
Director, Collection Concepts & Strategies
ODUSD(I) Technical Collection and Analysis

Current USD(I) Efforts (cont.)

- **Joint Technology Transition Working Group (JTTWG)**
  - **Currently under development**
  - **A joint IC Acquisition Council-NISTC working group that addresses technology transition issues**
  - **Charter to be signed by senior acquisition executives and their S&T counterparts from the IC**
  - **USD(I) representative is a signatory on the charter**
- **Still need to resolve issues on JTTWG focus**
  - **Major system acquisition (MSA)**
  - **Smaller “stand-alone” programs**